

Promoting Use of an Integrated Personal Health Record for Prevention

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Organization:	Virginia Commonwealth University
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Summary: Personal health records (PHRs) integrated with electronic medical records (EMRs) are tools that have the potential to promote patient-centered care and ultimately improve health outcomes. Although adoption and use of integrated PHR-EMRs is increasing, effective use of such systems typically occurs only within a subset of a primary care practice's patient population.

In a previous Agency for Healthcare Research and Quality-funded [project, MyPreventiveCare](#), an integrated PHR-EMR known as the Integrated Personal Health Record (IPHR) was offered to 2,750 patients in eight primary care practices—about 3 percent of the total practice population. Use of the system increased the overall delivery of preventive services by more than 5 percent, and by more than 10 percent for some specific individual services such as colon, cervical, and breast cancer screenings. MyPreventiveCare linked patients to their health information in their physician's EMR; provided personally tailored prevention recommendations to patients; linked patients to individualized educational resources and decision aids to activate patients and promote self-management; and generated patient and clinician reminders.

This followup project evaluated whether and how eight primary care practices could extend the use of MyPreventiveCare to their entire practice population (82,000 patients), and whether similar outcomes and benefits are seen when the system is implemented on a larger scale.

Dr. Krist and his research team applied organizational change theory to develop guidance on how to integrate MyPreventiveCare into care delivery using practice champions, learning collaboratives, and a patient-centered communications strategy. Study staff conducted key informant interviews, and recorded and analyzed learning collaboratives to understand the mediators and moderators to integration and use of the system. Evaluation of the impact of practice dissemination of MyPreventiveCare was based on the RE-AIM model, a systematic approach to evaluating health promotion interventions that assesses five dimensions: Reach, Efficacy/Effect, Adoption, Implementation, and Maintenance.

Specific Aims:

- Measure the utilization of the IPHR when the IPHR is promoted to patients by primary care practices using a patient-centered approach integrated into care delivery. **(Achieved)**
- Assess how clinicians use information in the IPHR and the IPHR's impact on the delivery rates of preventive services. **(Achieved)**
- Explore how well practices integrate the IPHR into care, identify mediators and moderators

(patient, provider, and practice characteristics) to IPHR integration, assess the use of the IPHR, and the degree to which it impacts service delivery. **(Achieved)**

2012 Activities: During this period, the research team continued to collect and analyze EMR data. In addition, the patient and provider surveys were disseminated, collected, and analyzed. An instructional guide on how to use personal health records to increase preventive services was developed. As last reported in the AHRQ Research Reporting System, project progress was completely on track and budget spending was on target. The project ended in May 2012.

Impact and Findings: IPHR users and non-users shared many characteristics, including having comparable health goals and feeling similarly activated, confident, and comfortable with their ability to manage their own health. However, users were more likely than non-users to have: 1) expressed a health goal of ensuring they got needed tests; 2) used the Internet for health information; 3) more interest in using the Internet to make sure their information was correct, look at lab and test results, see clinician's instructions, and email their clinicians; and 4) less concern about the cost of using technology.

Users had an increase in the delivery of preventive services compared to non-users, and had a greater increase in those who were up-to-date with all preventive services at 1 month, 3 months, and 6 months of the study. Four individual services—cervical cancer screening, prostate cancer screening, cholesterol screening, and diabetes screening—had greater increases for IPHR-users than non-users. Practices reported that the IPHR increased patient engagement in care, changed staff roles, reduced practice workload, improved EMR documentation, and improved the delivery of preventive care.

Target Population: Adults

Strategic Goal: Develop and disseminate health IT evidence and evidence-based tools to support patient-centered care, the coordination of care across transitions in care settings, and the use of electronic exchange of health information to improve quality of care.

Business Goal: Implementation and Use
